AMENDMENTS TO THE CLAIMS

Claims 1-50 (Canceled).

51 (Currently Amended) A method of detecting myocardial ischemia in a human or non-human body, said method comprising administering to said body a contrast medium consisting essentially of a physiologically acceptable manganese complex or salt thereof at a dosage of 0.001 to 0.2 mmol/kg bodyweight, with the proviso that said manganese complex or salt thereof is the only contrast agent administered in said method; subjecting said body to a magnetic resonance imaging procedure capable of generating images with time intervals of less than 0.5 seconds and thereafter providing a series of images of the myocardium of said body and identifying regions of abnormal blood flow.

52 (Previously presented) A method as claimed in claim 51 wherein said magnetic resonance imaging procedure is one capable of generating images with time intervals of less than 100 milliseconds.

53 (Previously presented) A method as claimed in claim 51 wherein said imaging procedure is a gradient echo or echo planar imaging procedure.

54 (Previously presented) A method as claimed in claim 53 wherein said imaging procedure is an inversion recovery echo planar imaging procedure.

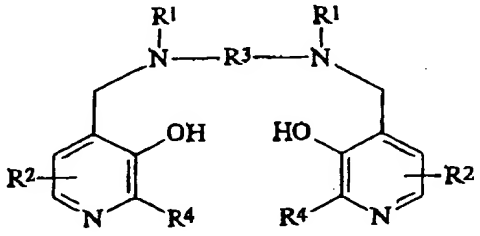
55 (Previously presented) A method as claimed in claim 53 wherein said imaging procedure is one in which TI (inversion time) is 100 to 800 msecs.

56 (Previously presented) A method as claimed in claim 51 wherein said manganese complex or salt thereof is administered at a dosage of 0.005 to 0.2 mmol/kg bodyweight.

57 (Previously presented) A method as claimed in claim 56 wherein said manganese complex or salt thereof is administered at a dosage of 0.01 to 0.05 mmol/kg bodyweight.

58 (Previously presented) A method as claimed in claim 51 wherein said manganese complex is a manganese chelate complex having a K_a value of from 10^7 to 10^{25}.

59 (Previously presented) A method as claimed in claim 58 wherein said manganese chelate comprises a chelating compound of formula I:



(I)

or a salt thereof

(wherein in formula I

each R^1 independently represents hydrogen or $-CH_2COR^5$;

R^5 represents hydroxy, optionally hydroxylated alkoxy, amino or alkylamido;

each R^2 independently represents a group XYR^6;

X represents a bond, or a C_{1-3} alkylene or oxoalkylene group optionally substituted by a group R^7;

Y represents a bond, an oxygen atom or a group NR^6;

R^6 is a hydrogen atom, a group $COOR^8$, an alkyl, alkenyl, cycloalkyl, aryl or aralkyl group optionally substituted by one or more groups selected from $COOR^8$, $CONR^8_2$, NR^8_2, OR^8, $=NR^8$, =O, $OP(O)(OR^8)R^7$ and OSO_3M;

R^7 is hydroxy, an optionally hydroxylated, optionally alkoxylated alkyl or aminoalkyl group;

R^8 is a hydrogen atom or an optionally hydroxylated, optionally alkoxylated alkyl group;

M is a hydrogen atom or one equivalent of a physiologically tolerable cation;

R^3 represents a C_{1-8} alkylene group, a 1,2-cycloalkylene group, or a 1,2-arylene group; and

each R^4 independently represents hydrogen or C_{1-3} alkyl).

60 (Previously presented) A method as claimed in claim 59 wherein in formula I:

R^5 is hydroxy, C_{1-8} alkoxy, ethylene glycol, glycerol, amino or C_{1-8} alkylamido;

X is a bond or a group selected from CH_2, $(CH_2)_2$, CO, CH_2CO, CH_2CH_2CO or CH_2COCH_2;

Y is a bond;

R^6 is a mono- or poly(hydroxy or alkoxylated) alkyl group or a group of the formula $OP(O)(OR^8)R^7$; and

R^7 is hydroxy or an unsubstituted alkyl or aminoalkyl group.

61 (Previously presented) A method as claimed in claim 59 wherein in formula I, R^3 is ethylene and each group R^1 represents $-CH_2COR^5$ in which R^5 is hydroxy.

62 (Previously presented) A method as claimed in claim 59 in which the compound of formula I is N,N'-bis-(pyridoxal-5-phosphate)-ethylenediamine-N,N'-diacetic acid (DPDP) or N,N'-dipyridoxyl-ethylenediamine-N,N'-diacetic acid (PLED).

63 (Previously presented) A method as claimed in claim 58 wherein said chelate complex is a complex of a linear, branched or macrocyclic chelant selected from polyaminopolycarboxylic acid chelants and carboxylic acid derivatives thereof.

64 (Currently Amended) A method of detecting myocardial ischemia in a human or non-human body, said method comprising administering to said body a contrast medium comprising a physiologically acceptable manganese chelate complex, subjecting said body to a magnetic resonance imaging procedure capable of generating images with time intervals of less than 0.5 seconds and thereafter providing a series of images of the myocardium of said body whereby to identify regions of abnormal blood flow, wherein said complex has a K_a value of from 10^7 to 10^{25} and is a complex of a chelant selected from the group consisting of N,N,N',N",N"-diethylenetriaminepentaacetic acid (DTPA) and 6-carboxymethyl-3,9-bis(methylcarbamoyl-methyl)-3,6,9-triazaundecanedioic acid (DTPA-BMA); with the proviso that said manganese complex or salt thereof is the only contrast agent administered in said method.

65 (Currently Amended) A method of evaluating the severity of myocardial ischemia in a human or non-human body, said method comprising administering to said body a physiologically acceptable manganese complex or salt thereof at a dosage of 0.001 to 0.2 mmol/kg bodyweight, subjecting said body to a magnetic resonance imaging procedure capable of generating images with time intervals of less than 0.5 seconds and thereafter providing a series of images of the myocardium of said body to indicate the degree of blood perfusion deficit in the myocardium; with the proviso that said manganese complex or salt thereof is the only contrast agent administered in said method.

66 (Currently Amended) A method of monitoring reperfusion of the myocardium of a human or non-human body, said method comprising administering to said body a physiologically acceptable manganese complex or salt thereof at a dosage of 0.001 to 0.2 mmol/kh bodyweight, subjecting said body to a magnetic resonance imaging procedure capable of generating images with time intervals of less than 0.5 seconds and thereafter providing a series of images of the myocardium of said body

and identifying regions of reperfusion; with the proviso that said manganese complex or salt thereof is the only contrast agent administered in said method.

67 (Currently Amended) A method of discriminating between reversibly and irreversibly injured myocardial tissue, said method comprising administering to said body a physiologically acceptable manganese complex or salt thereof at a dosage of 0.001 to 0.2 mmol/kg bodyweight, subjecting said body to a magnetic resonance imaging procedure capable of generating images with time intervals of less than 0.5 seconds and thereafter providing a series of images of the myocardium of said body and discriminating reversibly from irreversibly injured tissue; with the proviso that said manganese complex or salt thereof is the only contrast agent administered in said method.

68 (Currently Amended) A method of distinguishing viable myocardial tissue from necrotic (infarcted) tissue, said method comprising administering to said body a physiologically acceptable manganese complex or salt thereof at a dosage of 0.001 to 0.2 mmol/kg bodyweight, within a period of from 3 to 6 hours following administration of said complex or salt thereof subjecting said body to a magnetic resonance imaging procedure capable of generating images with time intervals of less than 0.5 seconds and thereafter providing a series of images of the myocardium of said body and distinguishing viable myocardial tissue from infarcted tissue; with the proviso that said manganese complex or salt thereof is the only contrast agent administered in said method.

69 (Previously presented) A method as claimed in claim 51 wherein said magnetic resonance imaging procedure is carried out within a period of up to 6 hours after the administration of said complex or salt thereof to said body.

70 (Previously presented) A method as claimed in claim 51 wherein the contrast medium further comprises calcium chelate complexes.

71 (Previously presented) A method as claimed in claim 51 wherein the contrast medium further comprises calcium or sodium salts.

72 (Previously presented) A method as claimed in claim 71 wherein the calcium salt comprises calcium chloride, calcium ascorbate, calcium gluconate or calcium lactate.

73 (Previously presented) A method as claimed in claim 51 wherein the contrast medium further comprises physiologically compatible buffers.

74 (Previously presented) A method as claimed in claim 51 wherein the contrast medium further comprises an antioxidant such as ascorbic acid or a reducing sugar.